but the judgment must be consulted and satisfied ere solid pleasure can be felt by the mind. How much more magnificent our façades and interiors might have been—how superior as works of art—if the cost of all that is shot up into the air for little except distant view had been spent in giving them nobler proportions or superior embellishment!

But this was not the only departure from the ancient practice, or the sole evidence of declension of taste: a change took place not only in the mode of application, but in the form and entire treatment of the dome. The Romans constructed the hemispherical cupola,

"And left it alone in its glory:"

the moderns would add charms to the lily, and improve the perfect. I refer to the elevation of the contour, and to the surmounting lanterns with which a Gothic predilection prompted the architects of the revival to violate the beauty of the dome; and maintain that the imposition of a lantern or other stone form on a dome, which is not in itself a structure, but the roof of one, however productive of a picturesque *ensemble*, is a barbarism. The dome must be considered as the spherical vault constituting the roof or ceiling of a single undivided interior or apartment, and, as such, its entire termination,—the omega of its completion: indeed, unless imagined as a solid spherical mass of stone—which is contrary to its roof character—it must appear insufficient to bear a stone superstructure. On small church domes a light finish or terminus, such as the cross, or a statue, or statuary group (which is not an unpleasing object) might be tolerated; but on a large dome any form whatever is an impertinence, an obscuration of its glory, and no more an improvement than would be a spot on the sun's disk. Any object, however symmetrical in itself, interferes with its characteristic beauty, mars the perfection of its shape, and is a neglect of the analogy of nature. Even the usual cylindrical platform round the eye of the dome is, if made perceptible from below, a mutilation that should be avoided. The dome is in itself a complete and perfect form; but when elongated and surmounted, as in the great buildings to which I have alluded, it loses its domical character altogether, and becomes a component and fractional part of a species of steeple, which seems the structure aimed at. It is constrained to a new office; impressed into a fresh service, and one foreign to its nature: it is made to contribute to an effect of height. Now such compositions may be of imposing effect, and to this the orbed segments largely, if not mainly, contribute; but the dome, as a dome, is lost. To have its full effect as a dome its spherical sweep must be uninvaded: a circle has no beginning nor end, and a globe has no apex, geometrically speaking: it is contained under one single surface, and its mathematical character, in which lies its surpassing beauty, must be unmarred if its charm is to be preserved. A superstructure destroys its unity, blunts its characteristic expression, mars its significant and majestic grandeur. The dome, like beauty's self, is

"When unadorned adorned the most."

It is the ever-varying mirror of the god of day, and the glory of the solar beam renders all ornament superfluous or ridiculous: on it sunshine indeed sleeps and smiles, and the greatest possible breadth and softness of light and shade are seen on its surface. In point even of utility the lantern is a disadvantage: it obstructs the light from the eye of the dome, to say nothing of its weight, which, in most instances, can only anticipate time in the work of decay.

It should, however, be observed, that the practices of surmounting the dome and of elevating its curvature are perfectly consistent: in fact, each calls for the other, and is necessary to it. The more upright curvature is required to give support to the lantern, and the lantern to give meaning and finish to the dome, which, without it, would terminate in a Gothic point. One, therefore, cannot be condemned without the other; but there is a practice altogether indefensible,—that no consideration can justify, viz. surmounting with a lantern the *hemispherical dome*, of which there are too many examples. In such the depressed arcs seem totally insufficient to bear the weight: the basement of the lantern is lost in any good view from below, and a want of union is manifest between the dome and its burden, which is not observed in the elevated examples.

A great hemispherical dome, divested of the usual incubus, depending for its effect upon the sublimity of its grand expanse, and the harmonious and beautiful play of light and shade over its unbroken spherical surface—in short, revealing all its glorious capabilities,—is an object we may perhaps find among the works of Arabian architects, but modern Europe scarce presents an example: here, I believe, its beauty has never been fully worked out: even among the magnificent works of the Moslem conquerors of India we have to regret a strange perversion of taste, for the greater portion of their domes are far from the noble simplicity of the primitive form. Round domes, indeed, characterise the Afghan architecture, but they are of very diminutive proportions. It is true that in mouldings and minor members the curves of the conic sections and others, possessing greater variety, are more beautiful than the circle; but in great structural parts the latter is the most noble, and the more complex curves are less admissible in proportion to the largeness of the scale.

The aim of the foregoing remarks, it will be perceived, is to point to the superiority in natural propriety and artistic beauty of the hemispherical dome entirely unencumbered, and placed immediately on the body of the building, of whatever form, and connected with it only by some octagonal substructure sufficient to receive the roof,—over those of elevated curvature and position, and surmounted summits. I contend for the principle which would place it immediately on the main building;—over the entire body in the case of a church or single block, as at the Roman Pantheon, or at Sultan Mahommed Shah's tomb at Bejapore; and thus give the idea, not of two buildings, one on the top of the other, but of one building both inside and out, with the noblest of all roofs: or, over the main body or chief limb of a multiform building, as a palace or college, as its roof, crowning some saloon, hall, or great central apartment, and not confined to the covering of an insignificant round tower, as at the National Gallery. The advantage of this is, that it would minister so much more largely to interior effect when it comprised the great portion of the ceiling, as St. Stephen's Church, Walbrook, will attest. But externally, as well as internally, its superiority would be manifest. A domical skyline spanning an entire edifice embraces the whole into unity,—an important quality in a place of worship: however scattered the elements of its plan, the dome makes it one. Nothing so loudly —so eloquently—breathes of one undivided interior, as the unbroken sweep of the dome. Of course, geometrical propriety prefers to see the dome on a rotunda or cylindrical building, and we should so place it as often as that form is called for; but that rotunda must be on the ground, not on the top of a square building. The Romans placed their round temples on the earth, where they have charmed all eyes: the moderns perch a caricature of them on the summit of a roof, and wonder if its beauty be not recognised.

If domed towers were proved to be an indispensable appendage, I would then inquire why they should not invariably be made of reasonable grown-up dimensions bearing some proportion to the substructure,—why they should not at least have the appearance of forming some real chamber. There is something childish in the idea of a little round building thrown up in the air merely to be looked at from without, with windows, columns, dome, all inclosing nothing,—no inside of any use or supposed use, as frequently the case, for it has not always even the humble office of containing a bell.

The dome is not adapted to the vertical composition, oblique action, and soaring spirit of the Gothic; but no nobler crowning or more harmonious termination could be imagined to the horizontal composition and majestic repose of the Greek.

I do not mean that the hemispherical dome would harmonise with the severe rectilinear and rectangular composition of pure Grecian Doric architecture: it must be prepared for below: the use of the curved line in a part so important as the roof, will call for curvature in doors and windows, and the absence of Doric severity throughout. Had the Greeks known the arch they would not, I think, have used it in their Doric temples, and they would have made a better application of it, a better association of it with the classic column than did the Romans.* S. H.

PATENT LAW REFORM AND PROTECTION FOR INVENTORS.

ALTHOUGH it was to be expected from the practice which has, unhappily, of late years prevailed, that many important measures of reform or improvement which were introduced during the session would be "dropped," yet it was not to be anticipated by even those who have the minimum amount of faith in the "collective wisdom" of the empire, that the Bill for the amendment of the laws touching letters patent for inventions, ushered in under such favourable auspices, would have met with so untoward and untimely a fate.

The Bill as sent down from the Lords, although it contained some objectionable clauses, was the result of much patient and earnest inquiry on the part of several parliamentary committees, and embodied the suggestions of numerous gentlemen either interested in patent property or in trade and manufactures, or of great experience in the administration of the law as it now stands. It was moreover based on, or rather was produced by, the fusion of two separate Bills, one introduced by the greatest law reformer of the age, Lord Brougham, who, we fear, to our irreparable loss, has quitted the scene of his labours and his triumphs for ever; and the other by the present Master of the Rolls, who was till lately her Majesty's Attorney-General, in which capacity he had ample means of ascertaining what remedies were required for the evils that existed. This Bill, then, from the passing of which so much was argued for the promotion of cheap or improved manufactures among us, by reason of the freedom it would give to the inventive genius of our countrymen, hitherto fettered by costly and frivolous, yet vexatious proceedings, under laws that were originally framed for monstrous and unjust purposes—the grant and maintenance of monopolies,—was introduced by a most intelligent member of the Government, with the concurrence and approbation of all parties in the House of Lords, prefaced, however, we grieve to say, with remarks against the granting of patents at all; from which we dissent *toto cœlo*, and to which we shall advert hereafter. The law officers of the Crown had charge of the measure in the Lower House, where it encountered, to the surprise and disappointment of members, patentees, and manufacturers, a series of objections that delayed its progress. The obstructors to Patent Law Reform, although numerically insignificant, as proved by their muster of force when they divided on one of the clauses, availed themselves so ingeniously of the forms of the House, that the Attorney-General, fearful of its being "dropped," was induced, in an evil hour, and too easily, to adopt the suggestions of his opponents, and to promise their engraftment on the original measure: for this purpose the Bill was withdrawn and almost entirely recast: some clauses omitted, some inserted, and many of the forms of procedure materially varied. On what was, for all business purposes, the last day of the session, the Bill was sent back to the Lords so altered and in such a sad state of confusion that there was scarcely time to read the amendments of the Commons,—certainly not sufficient for them to consider and debate upon them. From a desire to deal fairly with the public and the promoters, and from a conviction of what was due to themselves as the highest judicial tribunal of the empire, and

* To be continued.

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